4-Foot Wooden Digital Clock

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SUMMARY

Need to know what time it is, but don't own a phone, computer, microwave, or any of the other 100 clocks you probably already have? How about a huge mahogany digital clock to prove your geek prowess?
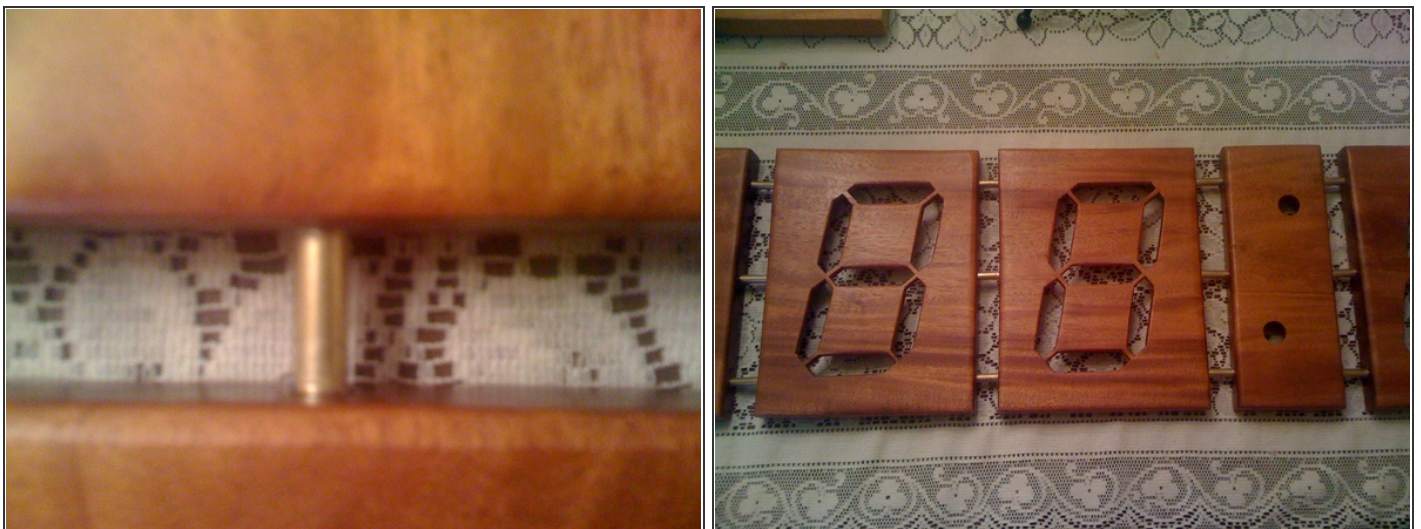
Step 1 — 4-Foot Wooden Digital Clock

- Get some wood. I chose mahogany.
- Create a template for your 7-segment digit.

Step 2

- Use a scroll saw to cut the LED segments out of the wood.

- Use a plunge router to hollow out the back side of the wood.

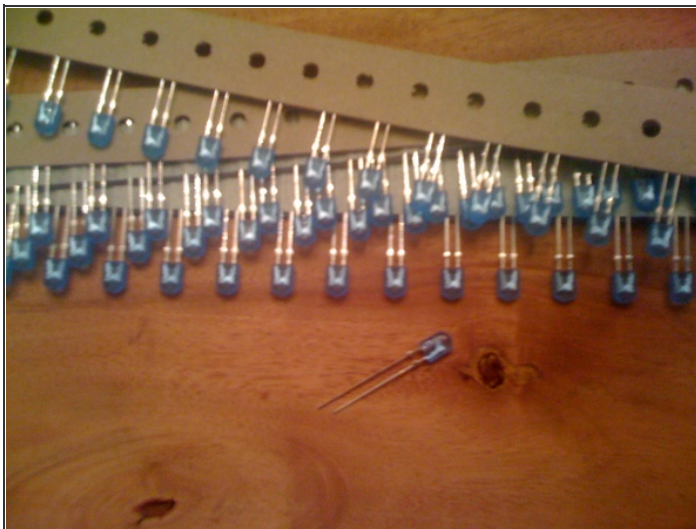- Stain the top side of the wood. I used a satin poly.

Step 3

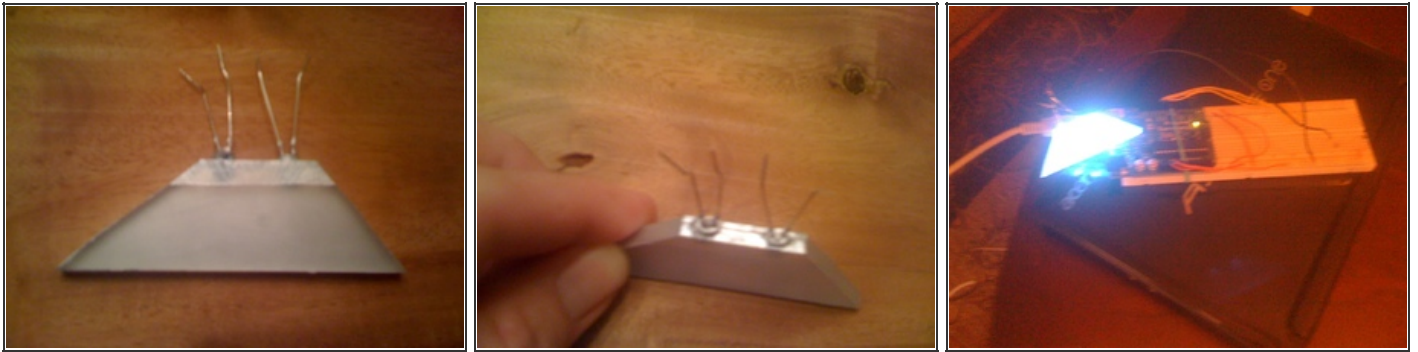- Connect the digits together using brass tubes and super glue.

Step 4

- Get some plexiglass and cut pieces to the shape of the LED segments. (I used the scroll saw for this.)

Step 5

- Get a few LEDs (I used blue 5mm).
- Drill holes in the edge of the plexiglass.
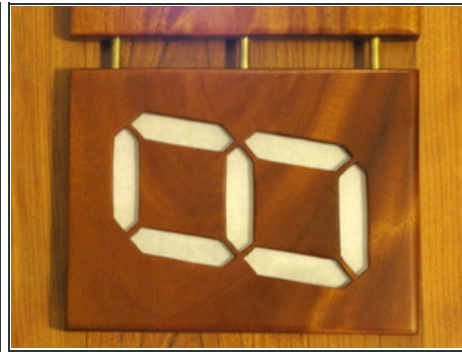- Super-glue the LEDs into the holes.

Step 6

- Paint the back and edges of the LED segments with metallic paint.

- Sand the front of the LED segments. The scratches will diffuse the light.

- Apply some voltage.

Step 7

- Take 2 thin sheets of plexiglass and sandwich rice paper between them.

- Hot-glue the LED segments to the plexiglass.

- Solder wires to all of the LEDs.

- Hot-glue the plexiglass to the inside of the digits.

- Connect each of the LED segments to a ULN2003A, and a 74HC595 chip. See the schematic. I also added a 220ohm resistor per LED.

Step 8

- Connect the chips to an Arduino and use the time library to "ShiftOut" the time to the 74HC595s.
- Stand back (way back) and check the time.
- Put it up on your cubicle for all your fellow drones to admire!

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